The "liquid add" systems typically work in a satisfactory manner provided that the technician first checks the capacity of the cooling system to determine the proper proportions for the amount of liquid to be introduced. Maintaining a cooling system with this method exposes the system to errors in implementation, and thus to over-inhibiting or under-inhibiting the system chemistry. The coolant filter method requires that a costly physical device be installed, requiring both a capital expenditure and the costs of labor for the installation. In both instances testing of the installed coolant must be done to determine the amount and necessity of chemical additives.

Exemplary of the art among liquid add compositions, U.S. Pat. No. 4,711,735 to Gulley teaches a coolant additive designed to avoid the use of silicates which form deposits that coat the surfaces and passageways of heavy duty diesel and other cooling systems. The additive includes sodium hydroxide and/or alkyl metal carbonate, ricinoleic acid, Reomet 41, Thiotax, various forms of SMA copolymers, sodium benzoate, sodium nitrate, chelant(s), antifoam agents, dye/pH indicator and soft water (composition solvent), mixed together in predetermined proportions with the additive including other constituent substances.

U.S. Pat. No. 5,711,894 to Miyake, et al. discloses an antifreeze concentrate that includes at least one ingredient selected from the group consisting of alkoxybenzoic acids and their amine salts, alkali metal salts and ammonium salts, wherein "R" is an alkyl group of carbon number 1-5. The coolant concentrate and antifreeze concentrate include the additive in the range of about 0.05-8.0 wt. %.

Illustrative of filter-specific compositions is disclosed in U.S. Pat. No. 4,980,075 to Dobrez, et al. which teaches an improved coolant filter composition for use in a coolant system filter having a space into which a supplemental coolant additive can be placed, wherein the